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Communications.

THE SOFT-SOLID AND "STILL LAYER" DIVISION OF THE BLOOD.

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Of New York.

In no other way, as I conceive, than by the rapid coursing of the red-blood-globules *through* the plasma, can the process of the transit and delivery of oxygen be carried on, unless we suppose the fluid portion of the blood alone to imbibe the oxygen from the air-cells of the lungs, as a stream may carry something away from the external side of its inclosing banks.

If this were the case, no mixture of oxygen could take place uniformly throughout the different parts of the stream.

But it is acknowledged that the red-blood corpuscles are the agents for receiving, carrying, and delivering it to the various parts where it is used, and to account for this it is requisite, not that they should passively float in the stream, propelled as the particles of the fluid column are, by the propulsive contraction of the heart, but that they should course rapidly through the stream, to become partially de-oxidized, or to deliver the oxygen throughout the lines of their advance, thus securing its perfect distribution, which is not conceivable on the old uncertain notion of their passivity.

In fact, it is this *partial* oxidation which they undergo in the lungs, to which is attributable their active movement.

This oxidation and partial de-oxidation, or parting with their oxygen, they regularly undergo, alternately and consecutively throughout their round, in different parts of the circuit, oxidation in their transit tide of flood through pulmonary capillaries, and de-oxidation in the general or systemic. In the latter they impart the surplus oxygen equally throughout to the volume of plasma, or fluid portion of the blood, becoming thereby partially de-oxidized. From the general system they again pass to the lungs, to absorb their fullest amount of oxygen.

The red color of the blood is entirely due to the red corpuscles, and these contribute to the blood its most important characteristics, and the difference in color between arterial and venous blood is caused by alternation in the material of which the red-blood corpuscle is composed. It was formerly considered that this matter consisted, chemically speaking, of two substances, hæmatine and globuline, but in reality there is but one, readily decomposed. A solution of this substance produces peculiar absorption bands in the solar specluum. This colored matter is known to be capable of existing in two degrees of oxidation, and a different spectrum is induced, according as the substance is in a more or less oxidized condition.

In venous blood there is every reason to believe, that part of this substance exists in its purple or less oxidized condition, and that this, in the form of the globules, in passing through the capillaries of the lungs, is re-oxidized and converted into scarlet in the globules.

Careful spectral analysis of the substance of the blood, the cruorine, shows that in one state, *i. e.*, in the arterial system, the substance of the red-globules is in a high state of oxidation, and in the venous system, in a low state of oxidation.

The red-globules, therefore, in virtue of their free and rapid movement everywhere, coming into contact thus with every particle of the plasma, keep it highly oxidized. This motion is, in fact, a necessary condition of the free imparting of their oxygen.

It is the plasma, from which the stream of blood regularly yields oxygen to the tissues, and this in virtue, not of the transudation or diffusion through the capillary, of the oxygen directly from the globules, but of the oxygen contained in the plasma, which regularly transudes through those walls into the tissues.

No red globule ever really comes nearly in contact with the tissues, even of the vessels themselves, and therefore, cannot impart their oxygen to the tissues, while the plasma does regularly transude to bathe the elements of the tissues

at all points uniformly, and supply their nutriment.

In the continual process of doing this, it supplies the pabulum for the tissues. Both oxygen and plasma are needed simultaneously, for a double purpose, viz., first, the oxygen reducing the worn particles for removal; and, secondly, the pabulum, particles of which are to supply the waste.

These processes must take place in precisely this order at one and the same period.

There are several processes in human physiology, of the exact character of which we are very uncertain, which can be accounted for by no other physiological phenomena or event than this, namely, the difference between the rates of its fluid, and of its red soft-solid bodies.

It is generally known that the *character* of the flow of the whole blood is different in different parts of the vascular system. First, that it is quick in the arteries. Here the whole column is pushed forward at each change thrown forward by the heart. It is much slower in the capillaries, and still slower in the large veins; and this is true of the blood *fluid* or plasma, for, always without exception, that rate of flow is not doubted to be identical for both the red corpuscles and fluid portion. But in reality, the plasma does not flow at the rate of the red-globules. The rate of the former is marked by the white globules, which are seen to glide slowly or hesitantly, as compared with the red, along in the circumferential part of the stream, and to occasionally move *along* some point of the inner surface of the capillary wall.

Really then, when a red-globule is retarded in a capillary stream by others preceding it entering from another capillary stream, the fact needs but to be truly understood, to make it apparent that the red-globules, in advance of a certain line or point, may cause delay in those just behind it, and thus an accumulation arises.

The units of the accumulated mass move slowly forward, from one end of the column to the other, until they reach a point where the most forward elements of the column are either impelled forward, or their rate of advance increased from some other incident, and the red-globules separated from each other to resume their usual flow.

This, in fact, regularly takes place at the cardiac end of the venous column, and the impulsion which clears them is given by the venous cavities of the heart.

It is well known that the character of the blood is not the same in the arterial and venous systems, and also that its constitution varies from time to time, being in fact not precisely the same blood at one time as at others.

During every term of digestive absorption, large additions are made to it, through the lacteals, of the fluidified food.

There exists the greatest uncertainty as to the exact character morphologically, of the human red-blood corpuscle. The general opinion is that it is a cell with red contents, the nucleus of which has disappeared, or that it is a free nucleus of a cell. But I have repeatedly shown that it has no cell-wall and only resembles a cell in its shape. For example, the entire red-corpuscle of the guinea-pig will rapidly crystalize in tetrahedral crystals, and subsequently the crystals will coalesce, showing the entire absence of any of the structures, or any of the distinctive material of the cell. Beside, the *majority* of the red-blood corpuscles cannot be tinged with carmine, while the nucleus of a cell is always deeply colored when treated with carmine. But, on the other hand, the *smallest of* the red-blood corpuscles can be colored by this means, and those are undoubtedly *young* red-corpuscles. The red-blood corpuscles are perpetually renewed, and as constantly disappear by a process not of disintegration, but of dissolution *a finale*, which is due to its recurrent oxidation and partial de-oxidation. The difference in size I have named, marks the difference in its stages of growth.

In the lymph canals, and passages in the intervals of digestion, there may always be seen small corpuscles of the same character, which may always be readily colored, and these undoubtedly grow to be full, complete corpuscles. And there is little doubt that they are constantly renewed in this way.

The facility with which they will break up and disappear under the action of the fluid and heat has been shown by Max Schultze, and if they be slightly pressed by a grinding motion between two glasses, they will be converted into a viscous amorphous mass; showing also in this way that they possess none of the structure of a cell, and showing their fitness to pass into a state of dissolution.

These characters of the reb-globule appear to me to accord with the facts I have stated, of its *rôle* in the circulation.

What we *see*, we rarely, at first, identify the true *character* of, as a fact, because the eye recognizes only the material form, etc., of the object, while the true character of the relations of the object to others, is discerned or given only

in a correct perception or apprehension of the fact, which latter is mental.

Since the time of HARVEY, not only has the greatest uncertainty existed as to the particulars incident to the movement of the substances and forms involved in the circulation, but the most striking confusion, inaccuracy and contradiction exists in the accounts given of the "supposed" facts.

1. Sometimes, for instance, a "still layer" is represented as a fact. 2. Sometimes this "still layer" is attended to as if its existence were uncertain and doubtful. Sometimes it is represented that this "still layer," which this time is an indubitable fact, is accounted for by capillary attraction, which keeps it stationary, and sometimes capillary attraction* is cited as the sole cause of the circulation, [*Draper*]; sometimes in this latter case, the *liquid*—excluding rate of globules,—is represented as moving only in the central portion, while again it is said "the plasma occupies the portion *next the walls of the vessels.*" Sometimes it is represented that the corpuscles are "floating in a plasma, which forms a *distinct layer* next the walls of the vessel," which indirectly states the idea that there is no plasma in the arial portion of the tube, and no corpuscles there. Sometimes it is stated that in vessels of considerable size, as well as the capillaries, the "corpuscles occupying the central portion," move with much greater rapidity than the rest of the blood, leaving a layer of clear plasma at the sides, which is *nearly immovable*,"—[*Flint, Human Physiology,*] thus ignoring the drawing a line of distinction between the fluid occupying the central portion, as well as other parts, by mentioning only the corpuscles there;—and sometimes the corpuscles are represented as "carried along with the central current," but whether this "amount" is of both fluid and corpuscles together, is not hinted.

Finally, sometimes a distinction of a certain character between the plasma and soft-solid or red and white corpuscular elements is drawn, and sometimes this very distinction just made, is ignored in the presence of a distinction of a conflicting character. The error of observation in the case of the rate of the blood, is easily explained by the aid of the facts I have presented.

Observing the rapidity of movement of the red-corpuscles, and confirmed in our first understanding of that observation by our *supposition* of a "still layer" of plasma on either side, we have supposed the rate of the red-globules to be that of the whole stream of blood both plasma and solid, *except* the "still layers." That portion of the plasma which moved at a different rate from the "still layer" of plasma, said to be "distinct" from the former, was the portion between each of the globules, occupying with them the central part of the tube. The distinction we based upon the observed rate of the globules, was one between this "still layer" at the sides, and the rest of the blood, both fluid and corpuscular, elsewhere in the vessels. And though from inaccuracy of statement, authors sometimes describe as I have cited, the corpuscles as in the centre of the stream, moving with marked rapidity, as compared with the "still layer," they do not mean to exclude from moving with and at the same rate as the corpuscles everywhere between them, a certain portion of the plasma itself, not at the sides.

But, *in reality* this "still layer" is an *error of sense. All* the plasma in the blood-channels move. It is only by means of the soft-solid bodies of the blood, or other separate particles in the fluid, that we are enabled to recognise the movements or flow of an otherwise homogeneous fluid. Deprive the plasma of these particles or equivalent bodies, and we should not be able *by sight*, to recognise its motion or flow at all. It is only where such bodies are shifting from point to point, backward and forward in the fluid, that we are enabled to see or directly recognise their motion. What we recognise in the case of the tide of the blood, is the *movement* of the corpuscles. And hence in those portions above them are no such bodies, as where the "still layer" occupies, we see *no motion, i. e.* moving bodies.

Remove the corpuscles from the central portion also, precisely as in the "still layer," the volume of plasma throughout the calibre of the vessel, will be a "still" volume. Whether it be real moving, so far as the sensation of sight is concerned, can only be ascertained by placing in it particles of matter, which if borne along in motion, will *either* be moving of themselves, or moving as *moved by the* fluid they occupy. As we cannot *see* the fluid *distinct from the globules* move, our

* Various Physiologists adduce the physical experiments of POUSEUILLE with tubes, illustrative of "capillary attraction," as accounting for the production of this "still layer," this (hypothetic) attraction being assumed to exert a *resisting* influence upon the *passage* of a fluid through a capillary tube, beside an attractive force which causes it to enter such tube a certain distance;—while DRAPER *cites this same "capillary attraction" to account for the entire circulation.* On the one hand it is alleged that a power ("capillary attraction") which actually *causes* the passage of a fluid into the hollow of a fine tube, becomes an obstacle to the further passage of the same fluid.

conviction that it does, must be an apprehension or inference, not an *event* of eye sight.

And yet in ignorance of this fact, and because we *saw* the globules move, and did not see that portion of the plasma containing none move, we have named it the "still" or "immovable" layer.

In fact this portion of the plasma called the "still layer," does move continuously. In the central portion where it flows between the globules, its movement is modified or hastened by the rush of the train or column of globules—but the volume along side also moves continuously. Its rate of movement is slow comparatively.

We who never suspected that the soft-solid bodies of the blood moved, except as *moved by* the fluid, yet observed again and again the fact that the white corpuscles move *in* this layer, and yet call it "immovable." The fact *disproves* our theory of such an arrested or stationary part of the blood, which we speak of as a "distinct" layer, thereby alleging a definite line of demarkation or separation, between, the blood fluid which occupies the centre and that which adjoins the sides of its channels, designating as two separate bodies of fluid—one moving through the other which is stationary.

More than this, there are, it is well known, capillary aræ, where the entire calibre of the vessel, is filled with globules, and no "still layer" exists. And there are many parts of the capillary system, all those subject to periodical congestion, where the plasma adjoining the sides of vessels, is regularly displaced, and the capillaries contain no other fluid blood than that between the globules. The same phenomenon occurs in blushing and similar sudden congestions, which even if *caused* by an act, involve the *displacement* of the "still layer" of plasma, and the full distribution throughout the calibre of the capillary, of the red-globules, and the plasma between them.

The Alcoholic Treatment of Pneumonia.

MM. Béhier and Jaccoud have employed rather extensively the treatment of certain kinds of pneumonia initiated by Dr. Todd, consisting of the employment of 100 *grammes* of brandy. This quantity may be increased to 150 *grammes* for men without inconvenience. It is better, when administering it to women, to commence by giving fifty, an to increase gradually to eighty *grammes*, not overstepping that quantity. As soon as the adynamia is decreased, and a real amelioration becomes manifest, the dose should be lessened, but never suppressed at once, as a recurrence of collapse, which it would be difficult to arrest, would seriously prejudice the result. In order, as far as possible, to prevent this relapse M. Jaccoud gives, after the brandy, Bordeaux or Burgundy wine in daily doses of 200 to 300 *grammes*.

ON THE MEDICINAL PROPERTIES OF THE GETTYSBURG MINERAL SPRING.

By John Bell, M. D.,

Author of a Treatise on Baths, and of an Account of the Mineral and Thermal Springs of the United States and Canada.

[Concluded from p. 266.]

A few words on lithia, as a comparatively new article of the materia medica, will not be out of place in this connection. This the third alkali closely approaches in some of its chemical characters, to potash and soda, in others to magnesia and lime. One of the most remarkable properties of lithia is that of rendering uric acid soluble, and hence when mixed with urate of soda, it decomposes this latter and unites with the uric acid, forming a soluable urate of lithia, and leaves the soda free. Dr. Garrod in his valuable treatise on gout, relates an experiment made by placing in a watery solution of lithia the end of one of the bones of the hand (the metacarpal), which was infiltrated completely with gout deposit. In the course of two or three days the whole of this deposit was dissolved. The advantages claimed by this writer for the salts of lithia, are their highly alkanised property, their solvent power for uric acid, or the urates, and their administration not being attended with any injurious consequences. The carbonate or other salts of lithia should be largely diluted, a condition provided for by nature in the Gettysburg water. Lithia is not foreign to the human body; it has been found by means of spectrum analysis in the ashes of blood and flesh, but in extremely minute quantity. It is contained in small fractional proportions in the mineral springs, both cold and thermal, of Germany, and in those of Vichy in France. In giving these particulars respecting lithia, it must not be supposed that we overlook or underrate the remedial value of its associate, soda. This alkali is found in so much larger quantity that not a little of the efficiency of the Gettysburg water depends on it. The only other mineral spring in the Atlantic States which approaches the Gettysburg in this respect, is the Bladon spring of Alabama, the water of which holds in solution between four and five grains of carbonate of soda to the pint.

As illustrating the benign effects of the Gettysburg water in dyspepsia, the case of a lady living near the town may be cited. She had been afflicted with "stomach disease or dyspepsia in one of its most terrible forms for twenty years." Such was the state of her stomach for may years that she was unable to drink tea, or coffee, or any

other liquid, even common water itself without vomiting, and could barely take nutriment of any kind in quantity enough to sustain life. She was gradually reduced to a state of extreme emaciation, and was so weak as to be unable to sit up in a chair. Her malady was aggravated still farther by pains and great depresssion of spirits. Recourse was ultimately had to the Gettysburg water, of which she drank for some months, and found, among other discoveries, that it was the only thing that would sit on her stomach. Under this course the lady regained entirely her health. We can well appreciate her joy when she says, in the exuberance of her feelings—"It has proved to me a veritable water of life."

The ex-member of Congress, whose case has been already described, relates of his wife that "she was cured of a similar disease accompanied with severe headache, by the water." Even were direct evidence wanting, we are quite safe in attributing to the Gettysburg water, ameliorating, and if taken in due time, curative effects in diseases of the kidneys in which calculi or gravel of uric acid are formed and discharged. In irritable bladder, that troublesome and painful malady, it will be found a valuable remedy. Dr. O'Neal, Physician and Surgeon to the House of Industry and the Jail of Adams County, and for twenty-five years engaged in the practice of his profession, says, that the Gettysburg waters "have acquired an enviable celebrity for the relief and cure of rheumatic affections, gout and diseases of the kidneys and urinary organs." A citizen of Gettysburg gives a statement of his having been greatly relieved in his troubles from dyspepsia and irritable bladder by the use of the water.

The manifest sanitary influence exerted by the Gettysburg water over dyspepsia, naturally prompts to some remarks on the proteiform character of this disease. Imperfect and disordered digestion, which is called dyspepsia, is attended by a host of symptoms, but the smaller number of which are directly referred to the state of the stomach and bowels. The dyspeptic often suffers from one or more of the following secondary disorders, viz., headache, vertigo, neuralgia, cough, stricture and pain of the chest, asthmatic oppression, palpitations and hypochrondriasis, and if the invalid be a female, hysteria and derangements of health depending on her peculiar organization. The digestive apparatus failing to do its duty, the food cannot be manufactured into chyle and blood of such a quality, and in such quantity, as to meet the wants of the other organs. The brain and nerves and muscles suffer in consequence, and perform their respective offices of thought, sensation and locomotion feebly, and with effort. The heart suffers from palpitation and irregular contraction of its muscular walls, and the blood-vessels transmit an impoverished vital fluid to the organs through which they are distributed, and in which they deposit the nutritive matter required by each of them for its growth and performance of its particular duty. The skin is pale when not sallow or jaundiced, and is cold and rough to the touch. From this imperfect nutrition aided by impure air, and damp and dark lodgings, there ensues scrofula with its many guises, and chronic affections of the skin. The kidneys which are in such close sympathy with the digestive organs, soon evince responsive disease. Many of these remote symptoms are treated as if they were separate and independent disorders; and of course empirically, in place of their being regarded as effects of a common cause, viz., "imperfect and disordered digestion." If then we have a remedy, at once simple and efficacious for this central and primary disease, in the Gettysburg water, we have the means, at the same time, of preventing and curing a long catalogue of outlying and secondary derangements, which if they do not destroy life, make it miserable and too often useless.

The mode of operation of this water varies according to the quantity drank at one time or at stated intervals, and according to the temperament and the actual state of the body. A pint or half a pint will often act as a mild aperient without any distress or exhaustion. This effect is not increased with any uniformity by an increase in the quantity of the water drank. More frequently it excites the kidneys to increased secretion, especially if the skin be kept cool. When used with this intention, a gill may be taken four times a day, and the quantity gradually augmented if the stomach is not oppressed by its use. The diuretic and sanitary effects of the mineral water will be greatly increased by the free drinking of pure common water. If the indications are such as to point to the desirableness of bringing on copious perspiration, as in some cases of rheumatism, chronic neuralgia and diarrhœa, this effect will be obtained by the invalid going to bed and being wrapped up in warm clothing, while drinking of the water and its adjunct in the manner just directed. The sweat should be kept up for from one to three days according to circumstances, of which the medical superintendent will be the judge. It will still be proper even though immediate relief should be procured by this treatment, to continue

the use of the water some time longer. On the lady who had suffered so long from chronic rheumatism of the shoulder and hand, the water acted as an aperient, as it did also in that of her daughter, in the quantity of half a pint. In the case of the member of Congress, it operated as a diuretic. The information regarding the sensible effects of the water in these cases has been kindly supplied to the writer by Dr. Huber. Its diuretic action was exhibited in a marked manner in a dropsical patient under the care of the writer, after some of the most approved medicine of this class had been taken without any evident result. Some of the invalids who used the Gettysburg water, speak of its producing vertigo. The writer has been occasionally affected in this way after drinking the water, more particularly when it failed to exert an aperient effect. Mr. D., so long the victim of chronic rheumatism, speaks of its producing on him a state "not unlike intoxication." Vertigo is quite common in invalids who have recourse to alkaline springs, and the more so where there are of the highly thermal class. The fact may suggest trials of the use of this water as to its operation on the nervous system, and its probable utility in certain nervous affections, and in what is vaguely called nervous debility.

While it may be well, in the beginning of the treatment of a case of disease by the administration of the Gettysburg water, to test its first effects on the body in the way of increase of the natural evacuations, it must be borne in mind that this is not the mode in which the larger number of chronic diseases should be treated. Saline waters may be given, in some cases, not only to cause free evacuations, but also to wash out, as it were, the tissues, by the large introduction of the mineral water into the circulating blood. But as a general thing, and especially as it relates to alkaline waters, their most assured curative effects are obtained by their being given in small quantities and at stated intervals, for a considerable period of time. In this way they are retained kindly by the stomach, enter the circulation, and are carried with the blood to all the organs, whose tissues they permeate, to the extent of what might be called saturation. Time is thus allowed for the mineral fluid to act on the minute cell-structure of every part, and to quicken into renewed activity the chemico-vital processes of absorption and deposit—the withdrawal of waste and effete particles, and the supply of fresh nutritive ones. A new and genial stimulus is, in this manner, applied to the entire organism, and all its functions are invigorated, without the disturbance which too often follows the administration of the active drugs of the shop in full doses. Medical men are familiar with the fact, that some of these very drugs—antimony, mercury, and colchicum, for example—are introduced into the system in small, but still in real measurable quantity, without their producing any sensible effect, while all the time they are bringing about a change in the state of the organs, which ends in the restoration to health. Medicines given in minute doses, and acting thus imperceptibly, are called alteratives. The water of the Gettysburg spring, in small quantity, as a gill at a time, is an alterative; acting quietly, insensibly, and gradually, but often surely. Sometimes, however, this even course is disturbed by feverish excitement and headache, followed by loss of appetite and broken sleep, all of which evince the power of the water, while at the same time, they call for a few days' rest from its use. If a physician superintend the administration of the water, as ought always to be the case, he will probably direct a saline aperient and the cooling regimen for a short time. At the beginning of its use, and particularly if it has been drank too freely, this water, like that of a majority of mineral springs, will not unfrequently cause constitutional disturbance such as that described. This state is regarded by many writers on the subject, as a sign of the saturation of the mass of the fluids of the body by the water, or a crisis which, although represented to be salutary in the end, will, as we have just said, call for a temporary cessation from drinking it.

The appropriate time for taking the water is in the morning before breakfast, and before dinner, and at bedtime. All mineral waters, like other medicinal substances, act more promptly and beneficially when taken on an empty stomach, or at least after the process of digestion is completed. Where, however, there is such irritability of this organ, that even a small quantity of fluid cannot be drank before breakfast, it may be taken an hour or two after this meal. As regards the duration of the period during which the water is to be used, this will vary from three weeks to three months, and even longer. Mr. D. recovered from his apparently intractable disease by the use of the water for six weeks. The lady who had suffered so much and for so many years from dyspepsia, continued to drink the water "for some months," before she had entirely recovered. From some infirmities the patient may be restored in a short period, but in cases of gout, chronic rheumatism, scrof-

ula, and gravel, it takes a long time to break up the diseased habit, and to establish a series of healthy actions, in fact, to renew the constitution. Even where a long period is deemed necessary, it will be proper to desist every few weeks, for a few days, from the use of the water, and thus prevent its undue accumulation in the system, and at the same time renew the susceptibility to its favorable action.

Some words of caution will conclude all that is necessary to offer at this time. They will be useful to all drinkers of mineral waters. Efficacious as the Gettysburg water has been shown to be in a large number of diseases, it must not be regarded as a panacea or cure-all that may be resorted to for every kind of ailment and disease. Although safer, even when taken in large quantities, and milder in its operation, than most of the medicines from the shop, it cannot, by any means, be drank without stint, and under all circumstances of bodily condition and temperament, without serious inconvenience, and sometimes an aggravation of the existing disease. If it be an agent of power, it is capable of being used either for good or for evil, according to the judgment and discretion that preside over its employment. On a subject of so much importance as the use of mineral waters for the cure of disease, a lamentable ignorance prevails among those who drink them for this purpose. With these persons there is but one belief, viz., that the more of the water they drink, the more readily and surely will their diseases be cured. They reason by a rule of three. If good service is done by one glass, how much greater benefit may be obtained by six or by ten glasses? They forget that the same belief, carried into practice in drinking of wine, would make a drunkard forthwith, and if carried out in taking turtle soup, would bring on apoplexy. Deprived, as the invalid at home is, of the accessories of change of air and scene, freedom from the cares of business, and free exercise, which increase so much the therapeutic effects of the water drunk at the spring, he is doubly bound to follow a careful regimen, if he hopes for the largest measure of relief and a speedy cure, in fact, if he hopes for a cure at all. Every excess is to be avoided, and regularity in the hours for eating, and sleeping, and taking exercise in the open air, is to be practised. The food is to be substantial and nourishing, but to give as little trouble as possible to the stomach, and hence a preference should be given to a milk diet. An indispensable requirement for deriving the fullest effects from drinking the water is abstinence from all intoxicating drinks and tobacco, both of which diminish the susceptibility to new impressions, and interferes more or less with the various secretions, saliva, gastric juice, bile, urine, etc., besides enfeebling the nervous and muscular systems. While we may not go so far as to insist on the discontinuance of tea and coffee during this time, it would be advisable to use these beverages in small quantities and largely diluted with milk or cream.

The Gettysburg water, like other waters of the alkaline class, is contraindicated in persons of a very full, plethoric habit, and in those laboring under fever, inflammation of any organ, or hypertrophy of the heart.

The use of the bath, cold, tepid or warm, but never hot, according to the experience of the invalids on themselves, will be a useful auxiliary to the drinking of the water. An equable temperature of the body should be kept up by suitable clothing. In fine, in every case in which it is proposed to use this water methodically and for a given purpose, the treatment ought to be carried out under medical supervision. This recommendation is not made in view of the probability of medicines being used conjointly with the water. On the contrary, pains must be taken to exclude, as far as possible, all disturbing causes, which may in the least interfere with the full action of the water.

Disinfectants.

Mr. Crookes, says the *Medical Times*, has shown that the favorite disinfectant, chloride of lime, is about the least efficient of any of those substances reputed to possess disinfectant qualities. Chlorine itself, is very little better, for if used in large enough quantities, it will in time destroy the virus, but as it acts by way of oxydation, and as living virus resists this longer than dead oxydizable matter, before the gas can attack a virus, everything else that it can oxydize will be oxydized first. And if, when pure, chlorine is so slow of acting, when adulterated with eightly per cent. of lime, its value is proproportionately less. In sulphurous and carbolic acid, on the other hand, there are substances absolutely destructive of every living thing of low organization, such as cattle-plague virus is supposed to be. These substances, besides destroying the virus, attack it at once, and arrest all putrefying tendency.

—— In Munich, the authorities for some years past have required that in all cases of children dying in their first year, the parents should declare whether or not the infant had been nursed by the mother. A statistical table of the last two years shows that out of one hundred deceased infants eighty-eight were not so brought up.

Hospital Reports.

Jefferson Medical College, *September 11th*, 1867.

Surgical Clinic of Prof. Gross.

Reported by Dr. Napheys.

Lithotomy, Performed Sept. 7th.

Mr. F., æt. 50. This man, upon whom the operation of lithotomy was performed last Saturday, vide, p. 250, is progressing without any untoward symptoms. He has taken no medicine. The secretions pass off by the wound, which is doing exceedingly well, being small and contracting. His pulse is good, and he has some appetite. On Monday forenoon he had a little hemorrhage from the wound, losing probably six ounces of blood. During the operation there was hardly an ounce of blood lost.

Burn.

Gottlieb K., æt. 21. This young man, employed in a brewery, has some very large vesicles on the left hand, the result of a burn received yesterday. There is apparently no swelling in the parts around.

In a case such as this is, the effect of a burn or scald, it is very necessary that the raised epidermis should be preserved as much as possible. If it be removed, the cutis vera will be exposed to the irritating influence of the atmosphere. In order to preserve the elevated epidermis, and to relieve the pressure produced by the contents of the vesicles, they should be pricked in various places with a delicate needle, so as to allow the accumulated serum to exude.

The vesicles were pricked, and the fluid evacuated in the manner indicated, and the parts ordered to be painted over with white lead paint, covered with a layer of wadding, and confined by a bandage, making moderate pressure. He was also directed to keep the arm in an elevated position, to eat no meat, and to take a saline cathartic.

Club-Foot.

This child, three months of age, is affected with the variety of club-foot known as varus, attended with a retraction and malformation of the heel. The deformity presents itself in an aggravated form, and is symmetrical, both feet affected as nearly alike as is possible.

How this disease originates is still a matter in dispute. The probability is that it is connected with a lesion of nutrition, that the muscles and tendons of the extremity do not receive a sufficient supply of nervous fluid, whatever the nature of that fluid may be. If the affection is permitted to progress, if the limbs are not properly exercised, the muscles will undergo fatty degeneration, and gradual atrophy.

In the slight forms of the affection it may be remedied by mechanical appliances without the knife, but wherever it presents itself in such a degree as in this case, it would be folly to attempt rectification without the knife. The child was placed under the influence of chloroform, and the tendo-Achillis on each side divided subcutaneously, the puncture being closed by a strip of adhesive plaster, to be removed at the expiration of five or six days. The gap between the divided ends of the tendon is filled up with plastic matter, which becomes organized, and ultimately transferred into tissue analogous to the pre-existing one.

The first operation of this kind was performed by Stromeyer, of Hanover, in 1831. Previous to that period the tendo-Achillis had been divided by direct incision, the consequence being that violent inflammation was set up, and the limb rendered in a great measure useless. The subcutaneous operation is now performed with impunity.

Immediately after the operation the apparatus for club-feet, a modification of the shoe of Scarpa, the famous Italian surgeon, was applied. Prof. Gross was formerly in the habit of putting on a bandage previous to adjusting the shoe, but of late years he has dispensed with it entirely. One of the important points to be attended to, is to bring the heel as far down as possible in the shoe. Great care should be taken that the apparatus is not applied in the first instance too firmly, otherwise there is danger of chafing the parts. After the first three or four days it should be taken off, and the feet well washed with soap and water. It should be worn for a period, varying from six to ten months. Often under the best management, a long time elapses before the deformity is entirely relieved. The after treatment should always be superintended by the operator himself, and not be left in the hands of the nurse or mother.

Gelatinoid and Fibrous Polyps of the Nose.

Joseph W. æt 19. This patient complains of obstruction of the left nostril. On looking into the throat no obstruction of the posterior nares can be perceived. The finger introduced, however, can be brought in contact with a very hard lobulated body apparently completely occluding the posterior opening of the nose. He has been affected in this way for two or three years. On looking into the nose in front, a whitish body, looking very much like an oyster, can be perceived.

The growth in front has an appearance very much like a gelatinoid polyp, the most common form of polyp met with in the nasal cavity. The substance behind, apparently of fibroid tissue, is harder than that in front.

By means of a pair of polypus forceps, a large gelatinoid polyp was removed. Another tumor, evidently of fibroid character, was then removed through the posterior nares by the forceps. A third growth was then found to be present, attached apparently to the floor of the nostril. This was loosened, by means of the chisel passed along the floor of the nostril, seized by the forceps and extracted through the mouth. Each of these tumors contained a number of roots.

Supernumerary Finger.

Belle M., colored æt. one month. This child has a supernumerary finger, hanging on by a cutaneous thread of attachment. It has two phalanges, the third being absent. Amputation

was effected with a pair of scissors. Generally these supernumerary fingers and thumbs are connected by ligaments through the medium of distinct articulations; now and then, however, as in this case, merely by a pedicle of integument.

Polyp of the Ear.

This young man, æt. 19, has an apparent polypoid growth in the left ear. He has suffered from otorrhœa ever since he was nine months of age. Last winter the discharge was very much worse; thick, offensive and bloody. He has had severe pain during the last six months in the part. Never had any enlargement of the glands of the neck; has no sore-throat; does not take cold easily; strength pretty good.

This is a form of disease to which the term scrofulous, strumous or tuberculous is applied in the present day. It belongs to a class of cases which in the majority of instances can be traced to syphilitic taint of the system. The probability is that the drum of the ear is destroyed, and it is not unlikely that there is some disease of the petrous portion of the temporal bone. If this affection is permitted to go on, in some of these cases the morbid action extends through the petrous portion of the temporal bone to the dura-mater, and sometimes even to the substance of the brain, destroying life in that way.

A rather rare form of affection is present here in the shape of a polypoid growth of the meatus of the ear. Sometimes a mass of this kind is gelatinoid in character, similiar to the gelatinoid form of polyp of the nose; at other times it is distinctly fibroid in its structure, resembling the hard variety of polyp occasionally met with in the nasal cavity, in the uterus and other mucous outlets of the body. It has, in this instance, a red appearance, looking very much like a mass of granulations. It has been developed under the influence of long continued irritation, and its presence is, as is always the case, accompanied by a foul, unhealthy discharge, excessively fetid more or less profuse, and generally sanguinolent. Sometimes the polyp projects at the free extremity of the meatus, at other times it is situated within, as in this instance.

The patient was placed under the influence of chloroform, and the structure, which was very vascular, was removed in parts by means of a delicate pair of forceps. He was ordered to take an anodyne at night of ten grains of Dover's powder, with one-fourth of a grain of morphia. Day after to-morrow the ear will be injected with a solution of chloride of zinc, fifteen drops of the officinal solution to half a pint of water. Counter irritation over the mastoid portion of the temporal bone by means of the actual cautery would be of great service.

— Hermetic Seal.—A mixture of gelatine and glycerine, is liquid while hot, but on cooling it becomes solid, retaining considerable elasticity and toughness. The neck of a bottle dipped into this melted compound is covered with an air-tight cap, which can be made as thick as desired by repeating the operation.

Medical Societies.

EAST RIVER (N. Y.) MEDICAL ASSOCIATION.

Reported by Wm. J. Purcell, M.D.

Stated meeting June 4th, 1867, Dr. Verranus Morse, President, in the chair.

Dr. W. F. Thomas in behalf of the Delegation, to the American Medical Association, presented a brief summary of the questions discussed at their last session.

Scarlatina and Rubeola, are they strictly Contagious?

A discussion relative to the late classifications of scarlatina and rubeola among the contagious diseases, by the Metropolitan Board of Healt. resulted in the appointment of a special committee to report at the next meeting. The committee as appointed consisted of the following: Drs. G. V. Skiff, M. S. Buttles, W. F. Thomas, R. J. O'Sullivan and Truman Nichols.

On the Practice of Druggists Renewing the Prescriptions of Physicians.

Dr. O' Sullivan presented the evils of the above custom in the following forcible terms.

He wished to call the attention of the Society to this subject, which he deemed of great importance. If the experience of every member of the Society, as well as of the profession generally were known, how many mistakes of a fatal character would be recorded through this pernicious practice. Every now and then, we are startled by some newspaper paragraph, informing us of the death of some unfortunate patient, either through the ignorance or culpable carelessness of the druggist or his employees. It is true we are not responsible for these mistakes, but the public look to us for protection in this matter, knowing as they do that by the proper exercise of our influence, we can guard them against the liability of such mistakes. He had consulted some of the ablest and most experienced lawyers in the city, and their opinion was that we had entire control in this matter, and that the druggist had no option but to obey the physician. As to the patients, he had no doubt of their approbation, knowing that we are actuated by regard for their interests.

Drs. O'Sullivan, Newman, and M. L. Smith, were appointed a committee charged with the drafting of the resolutions necessary to bring the matter before the parties concerned.

Continued Vomiting. after the Apparent Complete Reduction of a Strangulated Hernia.

Dr. Stein, gave the details of a case, which had occurred in his own practice, where the vomiting continued after a hernia had been to all intents and purposes reduced. This he explained on the hypothesis that a small portion of the intestine had been enclosed between the muscular fibres of the overlying muscle, and there was in fact vertical strangulation, although to a very limited extent. The patient however recovered.

Dr. Nichols had remarked the same phenomenon once or twice in his own practice.

Stated meeting July 2d, 1867. Dr. Verranus Morse, President, in the chair.

Scarlatina and Rubeola.

Dr. Skiff read a lengthy report, which was signed by all the members of the committee, and which was subsequently adopted as the sense of the meeting. Leaving out the history of the labors and investigations of the Committee, the principal points of interest may be summed up as follows:

1st. Measles and scarlatina are incident to childhood, but may occur at any age.

2d. That having occurred once, they constitute an immunity against an attack of the same disease.

3d. That they are each caused by a miasm extraneous to the human body, and portable by means of fomites.

4th. That they are not inoculable or preventable to any extent by substituting a less fatal or a less infectious disease.

5th. They are not peculiar to any social condition of society, the malign or non-malign character being mostly dependent on a more or less pernicious epidemic, the peculiar condition or idiosyncrasy of the individual attacked, or the complications which may occur in the course of the disease.

6th. They are self-limiting diseases.

7th. That the fatality seems to depend more on the virulence of the particular epidemic than the amount of miasmatic infection entering the system.

In the investigation of the subject under consideration, the Committee called on Dr. Elisha Harris, Secretary to the Board of Health, and received a letter from him embodying in an unofficial form all the facts on the subject, so far as the officers of the Board have given advice or orders relating to these diseases—as to what sanitary measures are now adopted and suggested by the Board to prevent and mitigate scarlatina, small-pox and measles.

In conclusion, the Committee submitted the following practical suggestions.

1st. That during an ordinary epidemic of measles or scarlatina, no sanitary measures except ventilation and cleanliness should be employed.

2d. That during a severe epidemic of these diseases the following sanitary measures should be adopted.

A. *Isolation.* The patient should be placed in a room apart from the rest of the family, and attended by a person who has had the disease—no communication being allowed with the rest of the family.

B. *Ventilation and Cleanliness.* The windows of the room should be kept constantly open, and whenever practicable, a fire in a fireplace, with a view to add to these means, should be constantly maintained.

The most thorough cleanliness should be insisted upon—and bed linen ought to be changed as often as practicable.

C. *Disinfection.* Every article of personal clothing and bedding once in contact with the patient should be steeped in boiling water, or in a solution of the permanganate of potash, (one ounce to three gallons of water).

D. *Fumigation.* After patients have recovered, the room in which they were sick should be vacated for at least twelve hours. Every window and aperture closed, and upon an iron pipkin or kettle with legs, burn a few ounces of sulphur.

Let the room be kept closed for eight hours and then ventilate thoroughly.

Prescriptions the Property of the Prescribing Physician.

Dr. O'Sullivan, as Chairman of the Committee upon the Grievances of Practitioners, and their right to prevent the unauthorized repetition of their prescriptions, reported, that as far as interviews with apothecaries had been obtained, the latter fully agree with the Committee, that the proposed action of the Association is necessary and of great importance.

Many of these pharmaceutists, indeed, expressed themselves surprised that the profession did not move in this matter at an earlier date, thereby relieving them of great responsibility, and placing the control of the matter more directly in the hands of the profession. A few did not refuse to accede, but from their answers, it was evident they would be governed by the action to be taken by the physicians in the matter. The Committee hoped that the resolutions about to be presented were sufficient and explicit enough to meet these objections.

They further had the pleasure to report, that the members of the profession addressed on the subject, approved the movement, and thought that it would become general, not only in this, but in other cities of this State and country.

They say further, that it is understood the Academy of Medicine and other societies of this city will move in this matter immediately.

The resolutions were then adopted, and are as follows:

Whereas, The attention of this Society has been called to consider the propriety of taking action relative to the practice of druggists renewing the prescriptions of physicians without their written order, thereby injuring very materially the interests of the profession; and

Whereas, In view of the grave and more important consideration, that the interests and lives of patients are, in consequence, endangered, we consider it a duty to guard to the utmost of our ability against the liability to mistakes, which should be prevented rather than deplored; be it, therefore,

Resolved, That we cordially invite the coöperation of every druggist in this city, especially in our immediate districts, to further this laudable purpose; and be it further

Resolved, That we respectfully request that no druggist will renew the prescription of any physician connected with this Society, without due authority for each and every renewal. Further, we will regard as unworthy of our patronage any druggist who fails to comply with the requirements of these resolutions.

Resolved, That a copy of these resolutions, with a blank card, be sent to each and every druggist in our districts, with a request that the card be returned within two weeks to the Secretary, signifying their intentions, with reference to compliance or non-compliance with these resolutions.

Stated meeting, Sept. 2d, 1867, Dr. V. MORSE, President, in the chair.

Report on Surgery.

Dr. F. D. WEISSE, chairman of the Section on Surgery, read an able and lengthy report on the different surgical cases appearing in the medical journals of the last six months, at the conclusion of which, the subject for the evening came up, being the discussion on Tumors in the Abdomen, and the difficulties attending an exact diagnosis.

Tumors in the Abdomen.

Dr. O'SULLIVAN opened the discussion by regretting that the time allowed him was so short as to preclude him from giving that attention he wished, and which the importance of the subject demanded, and wished that it had been entrusted to abler hands, inasmuch as his tastes and studies confined him more particularly to the region above the diaphragm, the heart and respiratory organs. Still he would venture below the line, and enter a region, he regretted to say, as yet but imperfectly explored. During his investigation, the Doctor says:

"I have examined a number of works, several years' volumes of the *Lancet* and other journals in great number, and have been surprised to perceive what little attention comparatively speaking, has been paid to the general features of the subject. Medical societies have carefully avoided it, with the sole exception of the American Medical Association, who, I understand, had it under discussion at their last meeting. The East River Medical Association can claim to be the first local medical body in this country to inaugurate the movement. It would seem to present to the profession of our day the same diagnostic difficulties that the diseases of the thoracic organs did to the profession of former days, until their hidden mysteries were unveiled by the mighty genius of LAENNEC, by the discovery of auscultation. . . . May we not, then, hope that it remains for some American physician to discover some method by which disease of the abdominal organs may be as successfully unfolded."

In illustration of the difficulties attending a correct diagnosis of abdominal tumors, Dr. O'SULLIVAN mentioned a case that came under his own observation at one of the largest hospitals in the city of New York, where the tumor, instead of being crowded in with the contents of the abdomen, lay in a far more superficial part of the body. He says:

"In my constant daily visits at the hospital in question, the visiting physician one day called my attention to a patient who, among other troubles, complained of pain and stiffness in the knee-joint. On examination, nothing of a rheumatic character could be detected, yet the patient persistently referred his troubles to that point. On turning him over on the bed, we readily noticed a swelling in the popliteal space. It was elastic and compressible. The pulsatory movements were rather obscure to the eye, but on balancing a pencil on the tumor, pulsation was plainly evident, but this did not appear quite so clear to the other observers. The case rested for the present. Some time afterward, in passing through the surgical wards, I was not a little surprised to see the patient occupying one of the beds, and minus his leg. Upon inquiry, the attending surgeon very candidly informed myself and several others, that when the patient was transferred to the surgical division of the hospital, the surgical board, upon consultation, decided that the tumor was an abscess. It was accordingly laid open, and then, indeed, the diagnosis was clearly made out. Not, however, of a simple abscess, but an aneurism. Immediate amputation, of course, followed, and the death of the patient resulted in a few days. Now, if an external tumor in such a suspicious spot as the popliteal space, where the liability to aneurism is so frequent, (next, I believe, to the thoracic aorta) a mistake of so grave a character can be made, and that, too, by experts, gentlemen who stand in the front ranks of the profession, and whose specialty is surgery, is it to be wondered at, that in the region of the abdomen, diagnostic difficulties should beset us at every step?"

In conclusion, Dr. O'SULLIVAN presented the following case, which occurred in his own practice:

"I was consulted February 20th, 1862, by Samuel Paesing, a native of Canton, China, aged about sixty, who had followed the sea for a livelihood, and who for several years past had kept a Chinese sailors' boarding house in New York. Some sixteen years since, while on a voyage from New Orleans to New York, he met with an accident, and received a severe contusion on his right side, which, upon his arrival in port, necessitated his removal to the hospital, where he remained several weeks, and was discharged cured. With the exception of this hurt, he always enjoyed excellent health, up to the date of his last illness. Like most of his countrymen, he was an inveterate opium smoker. When he first consulted me, he referred his trouble mainly to his stomach, where there was strong pulsation; he also complained of pain in the chest, and suffered from habitual constipation. Auscultation showed the lungs and heart to be perfectly normal. On examination of the abdomen, I perceived a small circumscribed tumor in the epigastric region, below the diaphragm, and in a line with the transverse colon; it had a nodulated appearance. Auscultation elicited no thrill, nor any symptoms of aneurism; in fact all the symptoms of this disease were carefully considered and excluded; there was marked dulness on percussion over the tumor, aneurism being thus excluded in making the diagnosis. I next considered the probability of its being carcinoma, but the usual symptoms of carcinoma being absent, and the recent appearance of the tumor partly excluded that disease. The fact of its being a fœcal accumulation was

speedily disposed of, so under this uncertain state of affairs, the treatment was simply palliative. After the lapse of several weeks, and the tumor continuing to increase steadily in size, I met several of the leading physicians and surgeons of the city in consultation, who, after the most careful examination, were unable to decide upon the real nature of the disease. On the 7th June, I consulted a late distinguished surgeon of this city, who gave it as his opinion that it was an aneurism, while still later, a prominent and leading physician, also of this city, pronounced it to be a tumor, but of what character he could not determine, and situated on the left lobe of the liver. The patient continued to grow gradually worse until the morning of the 24th June, when he died.

Assisted by the late Dr. D. S. Conant, Dr. O'Sullivan made an autopsy, and found a large mass, weighing over two pounds, attached to the left lobe of the liver, and lying directly on the abdominal aorta, from which it was readily dissected up. Closely adherent to the lower border of the tumor was the pancreas, a portion of which was removed with it.

Subsequent microscopic examination made by Professor Flint, Jr., revealed true cancer cells, free nucleoli, fatty globules and granular matter.

Editorial Department.

Periscope.

The Polytechnic Association.

The meetings of this Society were resumed at London, after the summer intermission, on Thursday evening September 19th. Of interest in its proceedings are some

Facts Concerning Deafness.

Following the reading of a note upon the causes of deaf-dumbness, Dr. Richardson remarked upon some prevalent but false notions, respecting the use of aids to hearing and to sight. Persons having but a slight impairment of their auditory apparatus, are loth to have recourse to speaking trumpets, fearing that thereby permanent deafness will ensue. But this is a mistaken idea, for the use of this aid is in effect a kind of invigorator, bringing the organs of hearing into full play, and thereby developing rather than paralyzing them.

In supporting similar views in relation to the organs of hearing and sight, Dr. Richardson recounted the observations made by Dr. H. R. Smith, of Chicago, during a recent visit of scientific research to the Mammoth Cave. The fish of these subterranean lakes are not only without eyes or even traces of an orbit, but so far as he could ascertain by careful and indefatigable investigation, are destitute of the sense of hearing; these facts going to prove the truth that the functions of the auditory and optic nerves become impaired by the partial or total deprivation of their natural stimuli, sound and light.

But on the other hand, excessive use of these nerves tends to their paralyzation. The case of three boiler-makers of this city made permanently deaf by hearing incessant hammering, was mentioned; also many cases of loss of hearing by artillerymen. In this connection it was incidentally mentioned, that the noise made by brass cannon affected the auditory nerves more painfully than that made by iron ordnance.

Concerning the Teeth.

A note upon late experiments, relative to the readiness of digestion of varieties of food, brought up Mr. Fisher, who advocated the more thorough comminution of food on the score of health and economy. In the rambling discussion which ensued, one speaker presented the testimony of a late French *savan*, who maintains that the superiority of an Indian's teeth, for example is due to the fact that, from insufficient cooking of their food, they are obliged to make great use of them; that the dentist's occupation was a sign and concomitant of excessive civilization. The dentists present denied the charge, affirming that rudimentary teeth of both sets were formed before the birth of the child; that the mastication of food in no way entered into the question, excepting perhaps in the case of the mother; and that the Indian had better teeth, simply because the constitution of the generality of their females was better than that of the civilized woman.—*Scientific American.*

Reviews and Book Notices.

NOTES ON BOOKS.

During the current year there has been more scientific energy displayed in Italy than for several years previous. Dr. D. Monti has written a work on diagnosis (*La Diagnostica della malattie, Venezia*, pp. 383.) in which he gives particular attention to pathological chemistry as a ready and practical means of distinguishing diseases. The short essay on Percussion in Thoracic Diseases (*Studi di percussione; Monza*) by Dr. L. Ripa has reached its third edition. A very complete work on the pathology of the heart and aorta, (*Patologia del cuore e dell' aorta,*) by Guido Bacelli, is in process of publication at Rome. Three volumes are already out, and the fourth will be the last. Dr. Giuseppe Aymini has briefly given the results of his experiments in dissolving vesical calculi, and treating other diseases of the genito-urinary apparatus by electro-chemical action (*La pietra della vesica, etc., Torino.*) In Naples, Dr. G. Bortone has projected in three volumes, the first of which has appeared, a body of practical clinical medicine, (*Indirizzo di clinica medica*, pp. 374).

Two catalogues of unusual interest in medical bibliography have recently been printed by Büchting in Nordhausen. One of them, the *Bibliotheca odontiatrica*, contains the tittle of

every book and periodical that has appeared in Germany on dentistry from 1847 to 1866 inclusive. The other, the *Bibliotheca Veterinaria*, embraces every book and periodical on all branches of farriery which has come from the German press since the year 1842. It is intended as a supplement to Dr. W. ENGELMANN'S *Bibliotheca Veterinaria*, and should be obtained by every one owning a copy of that useful volume.

Dr. HERMAN COHN has recently brought out a volume in Leipzig which we hope to see imported and studied before long. It is entitled (*Untersuchungen der Augen*, etc.) "Examinations of the Eyes of 10,060 School children, together with suggestions for the improvement of certain school arrangements injurious to the eyes. An etiological study" (pp. 161, 1 thaler). This is a matter of the highest importance, and nowhere more so than in this country. Another of the many works on military sanitary matters, which the Prusso-Austrian war occasioned, has appeared in Berlin, by Dr. W. BRINKMAN. It is on the volunteer nurses and their service in 1866, and is based on the official reports. (*Die Freiwillige Krankenpflege im Kriege*, pp. 143.) One of the most interesting works on this topic was written by the well known dentist, Dr. TH. W. EVANS of Paris (formerly of this city) in connection with the Exposition. It is entitled (*Les Institutions Sanitaires*, etc.) "The Sanitary arrangements during the Austro-Prusso-Italian conflict, followed by an essay on ambulance carriages, and a catalogue of the American sanitary collection of the author." For this collection, it will be remembered, Dr. EVANS received one of the *grand prizes* this summer.

The series of anatomical plates from the French of Bougery and Jacob, which have been recently published by a firm in Hartford, and which are advertized for sale in the REPORTER by parties in this city, are accurate and well-colored. They form a valuable addition to the library of a physician, and are eminently useful in keeping up a knowledge of anatomy.

The Trantactions of the American Medical Association. Instituted 1847. Vol. xviiii. Philadelphia: Printed for the Association, 1867.

This volume, as the product of the highest medical Association in our country, deserves more space than we usually spare to a book review. We are the more willing to give it an extended analysis, because of the very limited circulation it is likely to get, if not more successful in that respect than its predecessors.

After the minutes, (which appeared in the REPORTER a week before they were in any other medical journal in the country,) comes the address of the President, Dr. ASKEW. It contains some very wise suggestions; first, that the articles for publication should be selected with more care than they have been; then, that the rules of intercourse with irregular practitioners be discussed with a view to their modification; and finally, that the question of specialists be reconsidered. In all these respects the action of the Association must be brought up to the requirements of the times, or it will assuredly sink into decadence and contempt. The only reason why the Transactions are a drug in the market is, that much more valuable medical literature can be bought for the same money. Unfortunately, instead of acting on these hints, the Association passed its time chiefly in excursions and junketings. A few more such sessions, and it will be unnecessary to publish at all.

The first article is by Dr. STEPHEN ROGERS, on "Extra-uterine Fœtation and Gestation, and the Early Signs which characterize it; Symptoms of the Fatal Hemorrhage into the Peritoneal Cavity, its usual Termination; Suggestions for the Positive Diagnosis of this Fatal Condition; and a Plea for the Treatment indicated in it, with the view of saving the Life of the Woman." The signs, in addition to those of pregnancy in general, are paroxysms of hypogastric colicky pains occurring about the fourth or sixth week, usually referred to the right or left iliac region, recurring at varying intervals, accompanied by constipation, debility, and tenesmus, frequently followed by a sanguinolent discharge from the uterus, an early enlargement of that organ, and marked tenderness over the iliac region corresponding to the pain. The treatment recommended is gastrotomy, as soon as the tubal cyst bursts into the peritoneal cavity. Inasmuch as no instance of the successful resort to this means is adduced, and as its theoretical value only is all that the writer is defending, it was not worth while for him to be so very savage on those who doubt the propriety of the operation, especially the venerable Dr. MEIGS, whose advice he styles "rant," and "unjustifiable presumption."

Dr. M. K. TAYLOR gives some statistics of Heart Disease, observed in the military service during the war, and Dr. R. C. HAMILL a long report on the Meteorolgy, Medical Topography and Epidemic Diseases of Illinois; not so valuable as it would be if the observations had been greater in quantity or better in quality. So long as meteorology means only a discussion of the temperature and rain-fall, geographical medicine will get little good from it; and so long as

mortuary tables are made out "only to a very limited extent on the certificates of physicians," (p. 191), we believe they are of no value to anybody. With his materials, however, we believe no one could have succeeded better.

The Section on Surgery embraces a paper by Dr. Jos. S. Hildreth, "On the Action of Belladonna in Diseases of the Cornea," leading to the following maxims:

"In affections of the cornea, (*a*) with anæsthesia and diminished dilatability of the pupil, belladonna is indicated; (*b*) with normal dilatability of the pupil and absence of corneal anæsthesia, belladonna is not required."

Some useful, though not new information is contained in Dr. J. L. Little's Report on the Use of Plaster of Paris in Surgery. Dr. B. Howard narrates a case of varicose veins of the leg, which he cured by ligation, and subsequently depleting by incision the swollen vessels. Statistics of the Ligation of the Subclavian Artery follow; and the section concludes with a Contribution to the History of Hip-joint Operations during the Late Civil War, by Dr. Paul F. Eve, and a Statistical table on Lumbar Colotomy, (Amussat's operation for artificial anus), by Dr. G. C. Blackman, both going to prove that these formidable operations are not so uniformly unsatisfactory in their results as most surgeons think.

In a Report on the Rank of the Naval Medical Staff, Dr. Wm. Wood shows how unfairly that arm of the service is treated in this country.

Under the heading of "American Medical Necrology," Dr. C. C. Cox gives many interesting reminiscences of those of our profession who had gone to rest since the previous meeting.

The subjects of Medical Education and Medical Literature take up several articles, containing many valuable suggestions, and some not so valuable; as for instance, (p. 366,) when the neglect of the study of pharmacy, which we consider a crying evil, leading to expectantism and nihilism in treatment, and to a helpless exposure of the physician to the swindles and adulterations of rascally druggists, is deliberately recommended. No wonder that one of the committee formally withheld concurrence in such views.

Dr. Isaac Ray contributes some remarks on Insanity, of considerable general interest. Dr. Ernest Krakowitzer, a not very laudatory article on Local Anæsthesia, tending to confirm us in the opinion we have gradually been drifting to for some time, that Dr. Richardson's much bruited discovery is limited in application, and of "moderate value." "Epidemic Cholera, its Causes and Means of Prevention," by Dr. Harris. offers little that is not familiar.

The first prize was awarded to Dr. J. R. Black for an "Essay on the Cause of Intermittent and Remittent Fever." We confess to some disappointment in its perusal. Having no "theory" ourselves, we are perfectly willing to applaud any which is well argued. The following is the assumed law of causation:

"With a summer mean temperature of 60° F. and upwards, the greater the diurnal oscillations of temperature, the greater the prevalence of autumnal fevers; the higher the mean, the smaller the oscillation to produce the morbid phenomena, and the more intense their character. The untoward effects are greatly increased by a large amount of atmospheric moisture."

On this latter factor the author lays quite as much weight as on the other. Yet with a singular obliquity to meteoric laws, he states that in the statistics brought forward to support his theory he has used as its equivalent the rain-fall! Now any one at all versed in meteorological observations, knows that the rain-fall is no sort of test of the amount of water suspended in the atmosphere, and that any theory based on such a supposition is wholly untenable. Moreover, the point of saturation is reached nightly all over the Atlantic slope, throughout the summer and autumn months; and the explanations he offers of the relative unhealthiness of places under the same climatic conditions, the banks of the St. Johns river, (very unhealthy), and the Eastern Shore, only fifteen miles off (very healthy) for example, by supposing a material change in the moisture, is not less dubious than when applied to this city to explain the intermittent on South Broad street, while half a mile off the disease is unknown.

The second prize Essay, by Dr. M. A. Pallen, on the Treatment of Certain Uterine Abnormities, is a useful article on a practical branch of medicine. It is well illustrated with colored engravings.

After this analysis of the contents of the volume, every reader can decide as to whether it is the book he wants; but whether he wants it or not, we think that every member of the Association ought to buy a copy, if he can, if for nothing else than to encourage its publication, and to meet the necessary expenses of a Society, which, if properly directed, can exert a most salutary influence on the progress and character of the medical profession in the United States.

The Committee of Publication merits a compliment for the unusual promptness in the appearance of the volume.

Medical and Surgical Reporter.

PHILADELPHIA, OCTOBER 5, 1867.

S. W. BUTLER, M. D., & D. G. BRINTON, M. D., *Editors.*

LOUISVILLE, KY.

Dr. COLEMAN ROGERS has very kindly consented to represent the interests of the REPORTER in Louisville, Ky. He will procure material for its pages, as opportunity may offer, and will also receive subscription money from any who prefer to pay him rather than forward it through the mail. We have a large number of subscribers in Louisville and vicinity, and they can communicate with us at any time through Dr. ROGERS.

WANTED!

The unexpectedly large demand to supply new subscribers from the commencement of the current volume, has nearly exhausted our supply of several numbers. We will pay ten cents each, or give credit on subscription for any of the following numbers: 540—543—546—547—548.

See also in the advertising columns a list of numbers wanted.

THE YELLOW FEVER.

From FLAKE'S *Galveston Bulletin* of September 21, we compile the following tabular statement regarding the mortality of yellow fever in Galveston, Texas, this year to September 20th., as compared with five previous epidemics. We will premise that in 1853 and 1854, the population was estimated at 6000; In 1858 and 1859, at 8000; in 1864 it was, by actual enumeration 4,400. The present population is 22,500, the number of unacclimated persons being over 15,000. In the previous epidemic years there was a very small unacclimated population.

Epidemic Years...	1853.	1854.	1858.
Began.....	Aug. 16,	Aug. 9,	Aug. 27
Highest Mortality,	Sept. 12, 18,	Sept. 6, 17,	Oct 7, 13
Close of Epidemic,	Nov. 28,	Nov. 5,	Nov. 14
Total Mortality.....	536,	404,	344

Epidemic Years...	1859.	1864.	1867.
Began.....	Sept. 17,	Sept. 1,	July 24
Highest Mortality,	Oct. 27, 13,	Sept. 26, 13,	Aug. 16, 39
Close of Epidemic,	Nov. 30,	Nov. 20,	to Sept. 20
Total Mortality.....	182,	259, to Sep. 20,	1113

It will be observed that this year the epidemic may continue two months yet, from the date to which the record above is brought.

The Howard Association acknowledges and accepts the proffer of the professional services of Dr. J. M. COVERT of Portsmouth, Va., and commends him to the confidence and hospitality of the people.

The following is an exhibit of the operations of the Association during the week ending Sept., 20th.

Total number treated during the week,	251
Total number discharged during week,	140
Total number died during the week,	21
Total number under treatment Friday Evening September 20, 1867.	91
Amount expended during the week, $2,913	18

The Association have forwarded to the epidemic stricken towns in the interior, up to last evening, fifty-seven nurses, and are in readiness to increase the number as the requirements of our suffering neighbors are made known it.

The reports are that the epidemic continues in New Orleans, though in a mild form, the mortality being comparatively small. A few cases have occurred at Mobile, and it still continues at Pensacola and Tortugas, the mortality at the latter place being considerable.

There are reports of some cases having occurred at Green Point, Long Island, opposite New York.

EAST RIVER MEDICAL ASSOCIATION.

This is one of the most active medical societies in New York city. It was organized November 21st., 1865. Its regular meetings are held on the first Tuesday in every month at the residences of the members in alphabetical order. Its present officers are VERRANUS MORSE, President; M. S. BUTTLES and TRUMAN NICHOLS, Vice-Presidents; JOHN SHRADY, Secretary; NORMAN ABBOTT, Treasurer. It has over forty members. A correspondent, who, we trust will see that the members of the Association are not hereafter deprived of the benefit resulting from direct intercourse with the largest medical constituency in America, writes:

"Knowing the extensive circulation of your valuable journal, and the high rank it takes among the medical literature of the country, and the evident interest you manifest in everything relating to the noble profession of medicine and surgery; it occasioned us some little surprise to see no mention made in the REPORTER of the East River Medical Association of this city, a young and vigorous organization started some three years ago, and now numbering among its members nearly, if not all, the leading physicians and young practitioners on the eastern side of the town, many of whom are subscribers to, and ardent supporters of the REPORTER.

"Its objects are to cultivate intimate and friendly relations among medical men, who, absorbed in the duties of their profession, are

strangers to each other, to give them an opportunity of acquiring information by free discussion on subjects of interest, besides enabling the juniors to profit by the experience of their elders.

"This Society is the only local body that sent a full delegation to the late meeting of the American Medical Association. It has also the honor of being the first organization that appointed a committee to visit sick members, thus attending to a duty of vital importance, which I regret to say has hitherto been altogether neglected."

MODERN MIRACLES.

The latest sensation in Paris is a Zouave, by name Jacob, who occupies the humble position of "second trombone" in the Imperial Guard at Versailles. He claims to possess the power of healing by touch, or rather by the simpler method of *ordering* his patients to be well. The lame, the halt, and the blind, have thronged the doors of the two houses where he has been holding his daily *seances*, to such an extent, that the street in front was obstructed, and a score of policemen were necessary to keep the crowd of applicants from rendering the thoroughfare wholly impassable. In every direction cripples were seen hobbling on their crutches, paralytics carried on their beds, the blind led by their children, and the worn-out carried by their friends, all striving to gain admittance to the presence of the miraculous healer. They were let in by batches of thirty, their canes and crutches thrown in one corner of the room, and they were ranged on a long bench. Then a man about forty years of age, with dark hair and dark keen eyes, full of light, of medium size, slight figure, but evidently of considerable muscular power and remarkable self-command, would appear, and walk slowly up and down the room. This was the Zouave, Jacob. Occasionally he would stop before some unfortunate cripple, and tell him to go away, as he could do him no good. The inspection finished, suddenly, in a loud peremptory tone, he would order the others to get up and walk. Was he not promptly obeyed, with violent gesticulation, and not unfrequently with a good round oath, he harshly ordered them out of the room. The story goes, that few or none but struggled to their feet, straightened their long unused limbs, and went away rejoicing. No charge was made, as he healed without money and without price.

Such is the account that has been going the rounds of the papers the last few months, doubtless familiar to many of our readers. Angry denials of it, furious assertions that it is "impossible," avail nothing in presence of dozens, perhaps hundreds who have been benefitted or cured by him. Nor is it the part of calm science to indulge in such tirades against facts. We see no reason to doubt such incidents; indeed, so far from being incredible, they are not even rare.

Peter the Hermit, St. Bernard, and a hundred other prominent personages of the Romish Church, have unquestionably, by their touch and voice, caused the lame to walk, and the crippled to dance. So have, within the present century, the disciples of Edward Irving, and of Swedenborg. These facts are as clearly established as any in cotemporary history. By the admirers of these persons, they are attributed to the specially imparted power of God; by their opponents, to the power of the devil. The intelligent physician, who can rise above theological quibbles, sees in them curious nervous phenomena, very obscure as yet, but paralleled by numerous cases in his own experience. Two years ago, we saw in the Illinois State Lunatic Asylum, a man, muscular and perfectly well in body, who for three months, had not so much as turned over in bed, or moved a single voluntary muscle, so far as known. It was his second admission. Previously, he had lain for fourteen months in this condition, and then, one day, quietly got up, dressed, and went about his business. We had once under our care a strongly-built young soldier, free from any visible disease, yet who, on the least touch, would scream and writhe, apparently in the acutest pain, and who sought to avoid any movement, on account of the pain it gave him. A lady, a neighbor (but not a patient) of ours, had been in bed for twenty-seven years, and for six, had never so much as lifted a spoon to her mouth, on account of "spinal complaint," her physician said. She was carried to a celebrated quack a year or two ago, who rubbed her and "mellowed" her, and then ordered her to get up and walk. She did so, and has walked ever since. Such cases are common-place to physicians. The cures effected seem to depend directly upon a change in the innervation of the part and system, brought about by the action of a powerful will upon a ready recipient. The action of the nervous force in one body upon another system of nerves, controlling and affiliating them to itself, is shown strikingly in mesmerism, in animal magnetism, in the phenomena of "spiritual" media, and in the power of silently calling up similar thoughts to our own in other's minds. That the nervous force, or, as it has been called, the "odic force," not only can evoke in other nervous ganglia sensations as analogous

to the original as the secondary to the primary electric current, but can also exert a direct influence on material substances, cannot now be questioned.

In this imparted nerve-power, in this sudden impression on the nervous ganglia, starting them out of a long habit of exercising certain cells only, and bringing all into unobstructed normal activity, lies the secret of miraculous cures. Such cures are, of course, not always permanent, as the ganglia readily fall back into their habit of limited activity; and they are chiefly confined to nervous diseases, as we can conceive of only a few cases where the imparted activity would stimulate the secreting functions to the extent of removing deposits, arresting organic changes, or limiting abnormal processes. Nevertheless, the numerous well authenticated cures of scrofula by the royal touch admonish us that at present we are not able to set boundaries to the beneficial effects of imparted nerve power.

Notes and Comments.

Tobacco as a Prophylactic in Malarial Diseases.

Dr. JOHN WRIGHT, of Clinton, Ill., writes that, with good opportunities for observation, he has never seen a single case where he thought tobacco acted as a prophylactic in these diseases. He thinks that, if it had any such claims, they would have been put forward by those who are seeking excuses to justify them in the use of this filthy weed. Furthermore, he says that, even if it should be proven to be a prophylactic, he would rather have the ague than use it, especially while we have such a reliable prophylactic as quinia is known to be when properly used.

Dr. J. Marion Sims.

Our countryman, Dr. J. MARION SIMS, continues to receive "both riches and honor" abroad, as concomitants to the "wisdom" which he took abroad with him. In addition to the cross of the Legion of Honor, which he received some years since from the French Emperor, he has recently been decorated with the title and insignia of the Order of St. Maurice and Lazarus by the King of Italy, and has been named Commander, first-class, of the Order of Isabel la Catholique by the Queen of Spain. These last marks of distinction have been conferred on the Doctor as a recognition of the value of his late medical work, which has been translated into all the languages of Europe.

During the sessions of the International Medical Congress in Paris, Dr. SIMS gave a very brilliant reception and supper to the members of that body. A large number of the medical savants of France, England, Germany, Russia, Spain, Italy, the United States, and the English and Spanish Islands, were present.

Among the American notabilities in the medical world were: Dr. POPE, of St. Louis; Dr. PANCOAST, of Philadelphia; Dr. MCILVAINE, of Cincinnati; Dr. NATHAN R. SMITH, of Baltimore; and Dr. HUTCHINSON, of New York.

Science *v.* Empiricism.

A correspondent in the extreme northwest asks, "Where is the line of demarkation between science and empiricism?"—and instances, as a case in point, the article, in a June number, by Dr. MAXSON, on shoulder-presentations, which he highly commends. But, he says: "The Flathead Indians of this region of country have a custom of standing the woman on her head, in case of mal-presentation of fœtus, thus remedying the presentation without any digital manipulation at all. If it meets the indication, is it science, or quackery?

"If thereby the fœtus is caused to present in the most favorable manner, is the inversion of the mother more or less scientific than a manipulation without altering the position of the mother, or even when she be placed on her knees and breast?

"I do not know how a white woman in civilized lands would relish the idea of being inverted, but what ought scientific practitioners to do in the premises? For my part, if I had a case where I could not readily remedy the fœtal position by placing the woman on her breast and knees, as recommended, I should not hesitate to propose inversion, rather than take the risk of turning, as usually performed, or of cutting the child to pieces."

Reception of Prof. N. R. Smith, in Baltimore.

Professor NATHAN R. SMITH on his recent return from a visit to Europe, had a public reception tendered him by his professional brethren in Baltimore. An address of welcome was given by Dr. RICHARD MCSHERRY, in which he alluded to the long and useful career of Dr. SMITH in Baltimore as a surgeon and teacher. In the course of his remarks in response Dr. SMITH said:

"In my brief sojourn abroad I have, of course, had opportunities to compare our institutions with those of Europe. It cannot be denied that in those communities which are far older than ours, the science of medicine is far more mature than with us. Their institutions must neces-

sarily be far better provided than ours with those illustrations which have been accumulating for ages. Their hospitals have been founded and enriched by the bequests of many generations.

"In the city of Milan I visited the most magnificent hospital in all Europe. It contains 2,500 beds, three times the number of the hospital of St. Bartholomew's, in London, or the Laraboisier, of Paris. And yet Milan contains only about two-thirds the population of Baltimore. But Milan is a rich city, and has been so for ages. Many generations of wealthy individuals have bequeathed large sums to its institutions."

Prof. Gross of this city was one of the guests, and in response to a toast, paid a high tribute to the skill of Professor Smith as a surgeon, and also to his great moral worth as a man. He then proposed the health of the illustrious father of the distinguished guest, Nathan Smith, of Yale College. This toast was drank standing.

Remarks were also made by Dr. Ninian Pinckney of the U. S. Navy, and others.

Curious Discovery.

Professor Czermak, the inventor of the laryngoscope, and professor of physiology in the University of Jena, while examining the contents of the stomach of an Egyptian mummy, found a roll of something which after careful microscopical scrutiny he decided to be the skin of the sole of the feet, and of the mummy's own feet! Further investigation has shown that this was a common practice in Egyptian mummification, and it is explained as symbolic of the eternal separation of the dead, from the earth he so long trod, and as a sign of his manumission from the thrall of the world.—(*Der Globus.*)

Correspondence.

DOMESTIC.

Missed Labor.

Editors Medical and Surgical Reporter:

The case reported by Dr. T. B. Camden, of West Virginia, in No. 547 of the Reporter, under the heading of "Missed Labor," has induced me to give you a case of my own, similar to those given in his article, and the successful result, due more to the "vis medicatrix naturæ" than to my skill.

In 1859, I was called to see Mrs. ——, an Irish woman in her fourth confinement, age 36, light complexion, full habit. I found the os dilated so that two fingers could be passed with much difficulty. As she reported herself as being with hard pains all the night before, and always tedious in previous confinements, I gave her a pill of morph sulph., ex. of belladonna gr. āā. ss., and left, with orders to call me again if the pains were urgent. Heard nothing of the case for 36 hours; then on examination, found the dense hard unyielding ring of the os, so graphically described by Dr. Camden, with no improvement—case remained the same for four days, woman suffering much, except when under anodynes. The usual efforts were made for dilation with ergot, etc. The constitution began to suffer, (the waters had passed the second day,) and symptoms in the secretion of milk, and the offensiveness of the discharges, (the weather being hot,) etc., convincing me of the death of the child—I gave f.ʒj, doses of fluid ext., ergot, every fifteen minutes, with very slight contractions, and no dilation of the os—I then determined on delivery of great risk as a choice of evils.

After giving chloroform, passing a blunt pointed bistoury within the womb, and guiding it carefully, I made four slight incisions in the os uteri, as near as could be at equal distances, not daring more than the thickness of the instrument in depth; (a small one for hernia;)—then passing a small blunt hook, I succeeded after puncturing the skull, and an hour's difficult labor, in delivering the putrid fœtus. I judged the dilation to have been about four inches. There was no flowing. The secundines were removed without any trouble. The abdomen was immediately covered with a large thin poultice of bread saturated with oil of turpentine, and a pill of calomel, gr. j., opium, grs. ij., given every two hours, until thorough narcosis was established, with a weak milk punch given once or twice in twelve hours. Metritis and peritonitis followed, though evidently moderated by the treatment for five or six days. After the first twenty-four hours, milk punch with broth, with simple morphia were given, as much as could be retained, (vomiting being a common symptom.) The *gentleman*, whom I usually trusted for counsel was out of town, and I had no consultation. Do not think I should risk another case, except in view of the article spoken of above, as my patient escaped only after a three months' sickness, though now alive and the mother of one child since.

H. L. Burritt, M. D.

Bridgeport, Conn., Sept., 1867.

Depilatory Powder of the London Hospitals.

℞.	Quicklime,	ʒi.
	Yellow sulphite of arsenic,	℈ii.
	Powdered starch,	ʒi. M.

Add a little water, and apply to the spot from which the hair is to be removed. A few minutes suffice to produce this result.

News and Miscellany.

To Medical Colleges.

At the Convention of Delegates from Medical Colleges, called for the purpose of revising the system of Medical College instruction in this country, and which convened in Cincinnati, May 3d, 1867, the following resolution was unanimously adopted:

"*Resolved*, That a committee of five be appointed by the President, whose duty it shall be to present the several propositions adopted by this Convention, to the Trustees and Faculties of all the Medical Colleges in this country, and solicit their definite action thereon, *with a view to the early and simultaneous practical adoption* of the same throughout the country. And that the some committee be authorized to call another convention when deemed advisable."

The undersigned Committee, appointed for the purpose of carrying into effect the instructions contained in the foregoing resolution, respectfully invite the attention of the Trustees and Faculty of each duly organized Medical College in the United States to the five following propositions, which after mature deliberation, were adopted by the said Convention with entire unanimity:

"*Resolved*, 1st. That every student applying for matriculation in a Medical College shall be required to show, either by satisfactory certificate, or by direct examination by a committee of the Faculty, that he possesses a knowledge of the common English branches of education, including the first series of mathematics, the elements of the natural sciences, and a sufficient knowledge of Latin and Greek to understand the technical terms of the profession; and that the certificate presented, or the result of the examination thus required, be regularly filed as a part of the records of each Medical College.

2d. That every medical student shall be required to study four full years, including three regular annual courses of medical college instruction, before being admitted to an examination for the degree of Doctor of Medicine.

3d. That the minimum duration of a regular annual lecture term, or course of medical college instruction, shall be six calendar months.

4th. That every Medical College shall embrace in its Curriculum the following branches, to be taught by not less than nine Professors, viz.

Descriptive Anatomy, including dissections; Physiology and Histology; Inorganic Chemistry; Materia Medica; Organic Chemistry and Toxicology; General Pathology, Therapeutics, Pathological Anatomy, and Public Hygiene; Surgical Anatomy and operations of Surgery; Medical Jurisprudence and Medical Ethics; Practice of Medicine; Practice of Surgery; Obstetrics, and Diseases of Women and Children; Clinical Medicine, and Clinical Surgery; and that these several branches shall be divided into three groups or series, corresponding with the three courses of Medical College instruction required.

The first, or *Freshman series*, shall embrace Descriptive Anatomy and Practical Dissections; Physiology and Histology; Inorganic Chemistry, and Materia Medica. To these the attention of the student shall be mainly restricted during his first course of Medical College instruction, and in these he shall submit to a thorough examination by the proper members of the Faculty, at its close, and receive a certificate indicating the degree of his progress.

The second, or *Junior series*, shall embrace Organic Chemistry and Toxicology; General Pathology, Pathological Anatomy, Therapeutics, and Public Hygiene; Surgical Anatomy and operations of Surgery; Medical Jurisprudence and Medical Ethics. To these the attention of the medical student shall be directed during his second course of Medical College instruction, and in them he shall be examined at the close of his second course, in the same manner as after the first.

The third, or *Senior series*, shall embrace Practical Medicine; Practical Surgery; Obstetrics and Diseases peculiar to Women and Children; with Clinical Medicine and Clinical Surgery in a hospital. These shall occupy the attention of the student during his third course of college instruction, and at its close he shall be eligible to a general examination for the degree of Doctor of Medicine.

The instruction in the three series is to be given simultaneously, and to continue throughout the whole of each annual college term; each student attending the lectures on such branches as belong to his period of progress in study, in the same manner as the sophomore, junior, and senior classes, each pursue their studies simultaneously throughout the Collegiate year in all our Literary Colleges.

5th. That every Medical College should immediately adopt some effectual method of ascertaining the actual attendance of students, upon its lectures and other exercises, and at the close of each session, or of the attendance of the student, a certificate specifying the time and the courses of instruction actually attended, should be given, and such certificate *only* should be received by other colleges as evidence of such attendance."

It will be seen that these propositions are designed to introduce into the system of Medical College instruction in this country, *four changes* of great practical importance, namely:—1st. A positive standard of preliminary education. 2d. A longer time in which to acquire a knowledge of the various branches of Medical Science and practice. 3d. A systematic and successive order of studies for the student. 4th. A certain amount of direct clinical instruction in a public Hospital as a part of the senior course. The desirableness of these changes is too apparent to require either argument or illustration. The plan for accomplishing them, adopted by the convention, as expressed in the foregoing propositions, is simple and easy of execution, provided the several colleges will act in concert.

It requires each college to obtain and place on record sufficient evidence that every student admitted to matriculation possesses a certain amount

of preliminary education. It requires *attendance* and *pay* for three annual courses of college instruction, as a condition for graduation; and arranges the whole curriculum of the college into three corresponding series of branches, so that each student can limit his attention to one series each year, thereby laying a foundation and building on it a superstructure in their natural order.

It contemplates such an increase in the number of members of each college Faculty, that four lectures per day can be given to each of the three *classes* in attendance, throughout the whole college term of six months. This would afford a very full course of instruction in each of the three *series* of *branches*, and yet give to the members of each class time fully to digest the instruction received. This would make it necessary during a part of each day that lectures should be given at the same hours to different classes. But as all Medical Colleges contain two and some of them three Lecture rooms, this would be attended by no inconvenience to the Faculty or students. The only valid objection which has been suggested by those connected with the Medical Colleges, is, that the increase in the number of each College Faculty required by the proposed plan, would necessitate a corresponding greater division of the income of each college, and thereby seriously reduce the amount received by any one member. If it is remembered, however, that while the plan requires a moderate addition to the number of members in the Faculties of most of the colleges, it also requires each student to attend and *pay full fees* for three courses of instruction instead of two, it will be seen that the revenues of each college derived from Lecture fees, will be increased in full proportion to the increase of the Faculty. As most of the colleges have allowed each member of the Faculty to sell his ticket to the class and retain the proceeds as his individual compensation, it has been thought, that the proposed division of the students, attending any given college, into three distinct classes, and assigning to each a distinct series of branches, would limit the sale of the tickets of any one professor to the special class receiving instruction in his department; and consequently would restrict his income in proportion to the restricted number of tickets sold.

This is simply a misapprehension. The Convention took no action regarding the rate of lecture fees in any of the colleges; but the plan proposed, was founded on the expectation that each student would pay the same aggregate fees annually, as under the old plan. For instance, a student attending his first course and taking out the four tickets of the Freshman series, would pay the same amount for the four that he now pays for the seven or eight that cover the curriculum in most of the colleges at this time. Hence, although each member of the Faculty would sell a smaller number of tickets, the income from them would be nearly the same. Or each college could have all lecture fees, from the several divisions of the class, paid to a common treasurer, and each member of the Faculty allowed to draw on such treasurer for his proportion of the same.

The 4th section or proposition adopted by the Convention, was not designed to fix the titles to professorships in the colleges, but simply to designate what was deemed necessary to constitute a proper Medical College Curriculum, and to determine what part of that Curriculum should be included in each of the *three series* of studies. Uniformity among the colleges in regard to this division into series, is very desirable in order to enable students, if they choose, to attend one series of studies in one college and another series in another without confusion.

To obviate embarrassment in making the change from the present system of college instruction to the one proposed, we would suggest that all students who should have so nearly completed their period of study at the time fixed for making the change, that an attendance on a single additional course of Lectures would render them eligible to graduation, should be allowed to complete their course by attending the *senior* department under the new arrangement; while all who are in the first half of their period of study, should be subject to the new arrangement in full.

That the interests of medical science, the honor of the profession, and the welfare of the people, urgently require important improvements in our system of medical education and medical college instruction, is apparent to all. The public sentiment of the profession as expressed through the National, State, and local Societies, and through the leading medical periodicals, cordially sanctions the plan here proposed. We therefore respectfully ask you to give it a full consideration, and return to the Chairman of the undersigned Committee answers to the following questions:

1st. Do your Faculty, together with the governing authority of your College approve of the several propositions as a whole?

2d. If you do not approve of the plan of revision as a whole, what changes would you suggest?

3d. If you approve of the plan as a whole, or of all its essential features, will your College be ready to adopt it practically, and issue your Annual Announcement for the College term of 1868–9, in accordance therewith; provided all the principal Medical Colleges in this country (or at least those in the cities of Boston, New York, Philadelphia, Baltimore, Richmond, Charleston, New Orleans, Louisville, Cincinnati, St. Louis, Chicago, Buffalo, and Albany,) will agree to do the same at the same time?

The great desideratum is to secure both harmony and concert of action on the part of the Medical Colleges, in the adoption of such measures as will at once place the system of medical education in this country on such a basis as the extent of the science and the responsibilities of its practical application in the prevention and treatment of diseases, require.

N. S. Davis,
S. D. Gross,
Geo. C. Blackman,
F. Donaldson,
} *Committee.*

Chicago, Aug. 1st, 1867.

[*Notices inserted in this column gratis, and are solicited from all parts of the country; Obituary Notices and Resolutions of Societies at ten cents per line, ten words to the line.*]

MARRIED.

CONNOLLY—KILLORAN.—Sept. 24, at St. Vincent de Paul's Church, Twenty-third street, New York, by the Rev. Father Lefont, Pastor, James J. Connolly, M. D., and Miss Ellie M. B. Killoran, both of New York.

IRVINE—VENABLE.—At Wheatland, Mecklenburg co., Va., Sept. 5th, by Rev. B. W. Moseley, Capt. Jesse Irvine, of Bedford co., and Miss Margaret A. Venable, daughter of Dr. P. C. and Mrs. Emily E. Venable.

LOSHELL—PECK.—In Brooklyn, E. D., Sept. 24, by the Rev. W. H. Boole, Dr. R. M. Loshell, of Beaver Valley, Pa., and Miss Mary Peck, of Brooklyn, E. D.

PATTERSON—MCELLIGOTT.—Sept. 26, by the Rev. John Thomson, Walter M. Patterson, of Connecticut, and Emma P., daughter of the late Dr. James N. McElligott, of New York.

DIED.

BASSETT.—In New York, Sept. 25, of phthisis, Caroline A., wife of Dr. J. S. Bassett.

EVANS.—At Lewisburg, Pa., Sept. 23d, Charles R. Evans, M. D., son of the late David Evans, of New Britain, Pa., aged 28 years.

WATTS.—In Paris, France, on Sunday, Sept. 8th Robert Watts, M. D., Professor of Anatomy in the College of Physicians and Surgeons, New York.

OBITUARY.

T. M. Taggart, M. D.

The Wayne County Medical Society having heard, with feelings of deep regret, of the death of one of its most valued members; therefore,

Resolved, That by this dispensation of Providence we have lost an agreeable associate and skilful practitioner of medicine.

Resolved, That the Society, collectively and individually, tender to the family of the deceased deep and heartfelt sympathy in their bereavement.

Resolved, That a copy of these resolutions be sent to the family of Dr. TAGGART, that they be published in the MED. AND SURG. REPORTER, and inscribed in the minutes of the Society.

J. M. WEAVER, M. D.,
Secretary.

ANSWERS TO CORRESPONDENTS.

Dr. D. G. R., of Ky.—A plain article of skeleton would cost you, delivered, about $30.00.

Dr. S. H. B, of Tenn.—Sydenham's works can be bought here in Latin for $300. We do not think we can get an English translation.

Dr. H. C. A., Mich.—Kidder's machines (electro-magnetic) cost $20.00. The best hypodermic syringe, $10.00.

METEOROLOGY.

September,	16,	17,	18,	19,	20,	21,	22.
Wind	S. W.	S. W.	S. W.	W.	S. W.	W.	N. W.
Weather	Cl'dy.	Clear. Sh'r.	Clear.	Clear.	Cl'dy. Rain.	Clear.	Clear.
Depth Rain.		4-10			4-10		
Thermometer.							
Minimum	57°	65°	67°	68°	65°	62°	54°
At 8, A. M.	65	70	69	75	68	66	67
At 12, M.	74	81	81	82	75	68	71
At 3, P. M.	75	81	81	83	76	70	69
Mean	67.75	74.25	74.25	77.	71.	66 50	65.25
Barometer.							
At 12, M.	30.4	30.3	30.3	30.2	30.2	30.3	30.2

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